

The Staff of the California Air Resources Board Present
Advanced Clean Cars Symposium: The Road Ahead
September 27-28, 2016

DAY 1: Zero Emission Vehicle Technologies

Welcome (9:30):

Mary Nichols, Chair, California Air Resources Board

Keynote (9:45):

Britta Gross, Director, Advanced Vehicle Commercialization Policy, General Motors

Session 1: PEV Technology (10:10-11:10)

Battery Technology

Advancements in Li-Ion Technology and/or Manufacturing, Sue Babinec, Senior Commercialization Advisor, ARPA-E

Motors

Plug-in Electric Vehicle Optimization for All Wheel Drive (AWD), Peter Savagian, VP Propulsion Systems, Faraday Future Inc.

Break (11:10-11:20)

Session 2: Electric Charging and Hydrogen Infrastructure (11:20-12:20)

New Plug-in Electric Vehicle Infrastructure Opportunities

Wireless Charging, Richard 'Barney' Carlson, Research Engineer, Idaho National Laboratory

Challenges, Successes and Opportunities in Hydrogen Infrastructure Deployment

Moving Toward Network Expansion, Joel Ewanick, Founder and CEO, FirstElement Fuel at True Zero

Lunch Break (12:20 – 1:20)

Session 3: Fuel Cell Electric Vehicle (FCEV) Technology (1:20-2:20)

Stack Technology

Technology Developments to Enable FCEV Manufacturing at Scale, Go Tejima, Project Manager R&D and Engineering Management Division, Toyota Motor Corporation

Hydrogen Storage and BOP

Technology Developments to Enable Hydrogen On-Board Storage Manufacturing at Scale, Ned Stetson, Hydrogen Storage Program Manager, U.S. Department of Energy

Break (2:20-2:30)

Session 4: Plug-in Electric Vehicle (PEV) Usage Data (2:30-3:30)

OEM PEV Driving and Charging Characteristics, Ryan Hart, Air Resources Engineer, California Air Resources Board

PEV Data from UC Davis Household Study (First Year), Michael Nicholas, Postdoctoral Scholar, ITS-Davis

Break (3:30-3:40)

Session 5: Panel (3:40-4:40)

Matt Miyasato, Deputy Executive Officer for Science & Technology Advancement, South Coast Air Quality Management District (SCAQMD)

Panel (TBD)

DAY 2: Low Emission Vehicle & Greenhouse Gas Technologies

Welcome (9:00):

Alberto Ayala, Deputy Executive Officer, California Air Resources Board

Keynote (9:15):

Dr. Dean Tomazic, Executive Vice President & CTO, FEV North America, Inc.

Session 1: Engine Technology – What’s Around the Corner? (9:40-11:00)

Variable Compression Ratio (VCR)

VCR Engine Technology, Yutaka Fujimoto, Director of Powertrain, Nissan North America, Inc.

Miller Cycle

New Engine Technology, Reiji Okita, Powertrain Development Program Manager, Mazda Motor Corporation

Cylinder Deactivation

Potential Benefits of Cylinder Deactivation, Dr. Matthew Younkings, Chief Engineer, Powertrain, *Tula Technology Incorporated*

Break (11:00-11:10)

Session 2: Particulate Matter Technology Status (11:10-12:30)

Particulate Matter Technology

Gasoline Direct Injection Particulate Control Experience with Gasoline Particulate Filters for Gasoline Vehicles, Rasto Brezny, Manufacturers of Emission Controls Association (MECA)

Reducing PM Emissions: An Automobile Manufacturer Perspective, Dr. David Belton, Technical Fellow for Emission Controls, General Motors

ARB Testing

Particulate Matter Emissions from Low Greenhouse Gas Emission Technologies, Erin Shields, Air Pollution Specialist, California Air Resources Board

Lunch Break (12:30- 1:30)

Session 3: Vehicle Technology (1:30-3:00)

Continuously Variable Transmission (CVT) Technology

Gordon McIndoe, Technical Expert, Transmission Systems, Dana Inc.

P2-48 Volt Systems

Potential Efficiency and Cost Benefits of 48 Volt Systems and Synergistic Technologies, Brian McKay, Powertrain Technology & Innovation, Continental Automotive Systems, Inc.

Off-Cycle Credits

What is the Potential for Off-Cycle Technology for Connected Autonomous Vehicles (CAVs)? Marc Wiseman, President, Ricardo Strategic Consulting